



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/063,752	05/10/2002	David Michael Hoffman	GEMS0143PA	1567
27256	7590	03/11/2004	EXAMINER	
ARTZ & ARTZ, P.C. 28333 TELEGRAPH RD. SUITE 250 SOUTHFIELD, MI 48034			HO, ALLEN C	
			ART UNIT	PAPER NUMBER
			2882	

DATE MAILED: 03/11/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/063,752

Applicant(s)

HOFFMAN, DAVID MICHAEL

Examiner

Allen C. Ho

Art Unit

2882

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 December 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 9 and 10 is/are allowed.
- 6) ☒ Claim(s) 1-8 and 11-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 0802.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claim 1 is objected to because of the following informalities: line 9, --first-- should be inserted before "scatter". Appropriate correction is required.
2. Claim 11 is objected to because of the following informalities: lines 9 and 10, --first-- should be inserted before "scatter". Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-3 and 8-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Klingenbeck (U. S. Patent No. 4,995,107).

With regard to claims 1, 2, and 11, Klingenbeck disclosed a computed tomography system comprising: a gantry (19); an x-ray source (5) coupled to the gantry, the x-ray source adapted to generate an x-ray flux (3); a CT detector (one of 8) coupled to the gantry, the CT detector adapted to generate a detector signal in response to the x-ray flux; a first scatter detector (one of 15) coupled to the gantry, the first scatter detector adapted to generate a first scatter signal in response to the x-ray flux; and a host computer (12) adapted to receive the detector signal and the first scatter signal and to generate an image from the first scatter signal.

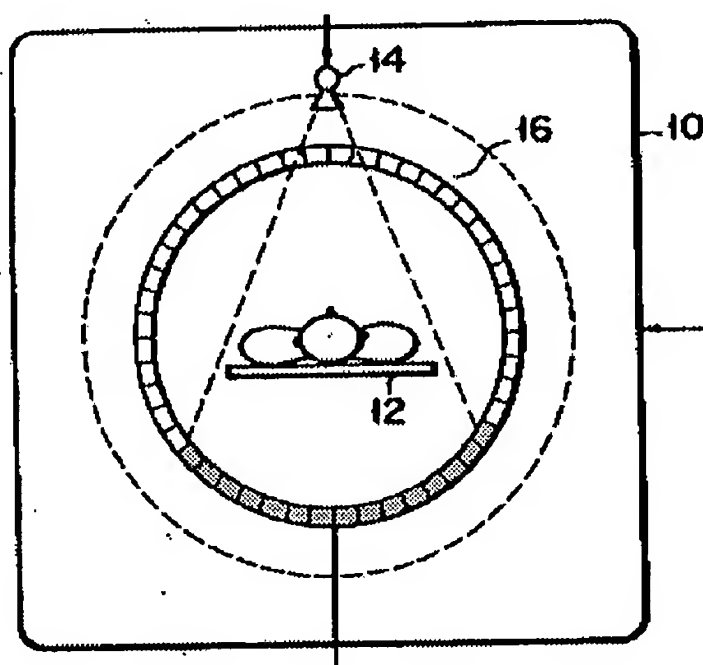
With regard to claims 3 and 13, Klingenbeck disclosed the system of claims 1 and 11, wherein the first scatter detector is positioned substantially adjacent to the CT detector (column 3, lines 14-18).

With regard to claims 8 and 12, Klingenbeck disclosed the system of claims 1 and 11, wherein the x-ray source comprises an extended x-ray source (an x-ray tube is an extended x-ray source).

With regard to claim 9, Klingenbeck disclosed a method for data collection for an imaging system comprising: activating an x-ray source (5); generating an x-ray flux (3); receiving scatter radiation from the x-ray flux in at least one scatter detector (one of 15); generating a scatter signal (18) in response to the x-ray flux; and receiving the scatter signal in a host computer (12).

With regard to claim 10, Klingenbeck disclosed the method of claim 9, further comprising generating a two-dimensional image (13).

5. Claim 1-8 and 11-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Saito *et al.* (U. S. Patent No. 5,025,463).



With regard to claims 1, 2, and 11, Saito *et al.* disclosed a computed tomography system comprising: a gantry (10); an x-ray source (14) coupled to the gantry, the x-ray source adapted to generate an x-ray flux; a CT detector (one of the shaded detectors in the ring 16 that detects the x-ray flux transmitted through an object 12) coupled to the gantry, the CT detector adapted to generate a detector signal in response to the x-ray flux; a first scatter detector (one of the unshaded detectors in the ring 16 that does not detect the x-ray flux transmitted through the object 12) coupled to the gantry, the first scatter detector adapted to generate a first scatter signal in response to the x-ray flux; and a host computer (20) adapted to receive the detector signal and the first scatter signal and to generate an image from the first scatter signal.

With regard to claims 3 and 13, Saito *et al.* disclosed the system of claims 1 and 11, wherein the first scatter detector is positioned substantially adjacent to the CT detector (one of the first scatter detectors in the ring 16 that lies next to a CT detector).

With regard to claims 4 and 14, Saito *et al.* disclosed the system of claims 1 and 11, wherein the first scatter detector is positioned substantially adjacent to the x-ray source (one of the first scatter detectors in the ring 16 that lies adjacent to the x-ray source).

With regard to claims 5 and 15, Saito *et al.* disclosed the system of claims 1 and 11, further comprising a second scatter detector (another one of the unshaded detectors in the ring 16 that does not detect the x-ray flux transmitted through the object 12) coupled to the gantry.

With regard to claims 6 and 16, Saito *et al.* disclosed the system of claims 5 and 15, wherein the first detector is positioned on a first side of the CT detector (relative to the beam axis) and the second scatter detector is positioned on a second side of the CT detector.

With regard to claims 7 and 17, Saito *et al.* disclosed the system of claims 5 and 15, wherein the first scatter detector and the second scatter detector are positioned only on one side of the CT detector (relative to the beam axis).

With regard to claims 8 and 12, Saito *et al.* disclosed the system of claims 1 and 11, wherein the x-ray source comprises an extended x-ray source (an x-ray tube is an extended x-ray source).

Allowable Subject Matter

6. Claims 9 and 10 are allowed.

7. The following is a statement of reasons for the indication of allowable subject matter:

With regard to claims 9 and 10, the prior art fails to teach or fairly suggest a method for data collection for an imaging system comprising the steps of receiving scatter radiation from the x-ray flux in at least one scatter detector coupled to a rotating gantry and generating an image from the scatter signal as claimed.

Response to Arguments

8. Applicant's arguments filed 19 December 2003 have been fully considered but they are not persuasive.

Applicant argues the prior art references fail to teach or fairly suggest a host computer adapted to receive said scatter signal and generate an image from the scatter signal. However, since language such as "adapted to" fails to positively recite limitation, this particular clause has not been given any patentable weight.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

- (1) Mario *et al.* (U. S. Patent No. 6,661,867 B2) disclosed an x-ray inspection system comprising scatter detectors mounted on a gantry.
- (2) Smith (U. S. Patent No. 6,094,472) disclosed an x-ray backscatter imaging system.

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Art Unit: 2882


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Allen C. Ho whose telephone number is (571) 272-2491. The examiner can normally be reached on Monday - Friday from 8:00 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward J. Glick can be reached at (571) 272-2490. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Allen C. Ho
Patent Examiner
Art Unit 2882

ACH ACH 26.02.2004


EDWARD J. GLICK
SUPERVISORY PATENT EXAMINER